

the DRB10401 binding motive are for example given in Hammer et al., Cell 74 (1993), 197-203. Hammer states that "[t]he amino acid composition of all identified anchors and the deduced MHC class II allele-specific binding motifs are summarized in Table III. Comparing the motifs identified for the three alleles, we see that while the anchors at positions 1 and 4 are practically invariant, the anchors at position 6 differ among the three DR alleles. This suggests that residues at this position confer allelic specificity to the binding. Table III is attached below.

TABLE III

Relative Position									
	1	2	3	4	5	6	7	8	9
ORB1*0101	Y* (47%) F (26%)	X	X	M (48%) L (28%)	X	A (34%) G (23%) S (09%)	X	X	L (43%) M (13%) A (13%)
DRB1*0401	W (43%) Y (31%)	X	X	M (23%) A (19%) V (13%) L (12%)	X	T (60%) S (12%)	L (34%) Q (20%) M (10%) N (10%)	X	X
DRB1*1101	W (67%)	X	X	M (33%) L (23%) V (13%)	X	R (61%) K (12%)	X	X	X

Such anchor positions are conserved in peptides according to the invention or optionally replaced by amino acid residues with chemically very closely related side-chains (e.g.

E1 conclude

alanine by valine, leucine by isoleucine and vice versa). The anchor positions in the peptides according to the invention can be determined in a simple manner by testing variants of the above-mentioned specific peptides for their binding capability to MHC molecules. Peptides according to the invention are characterized in that they exhibit an essentially equivalent specificity or/and affinity of binding to MHC molecules as the aforementioned peptides. The peptides derived from peptides having the amino acid sequences (I) or (II) or from the amino acid sequences shown in Figures 1 and 2 preferably have a sequence homology of at least 40%, particularly preferably of at least 50% and most preferably of at least 60% to the parent peptides or partial sequences thereof.

REMARKS

Claims 46-58 are currently pending and Claims 55-58 have been withdrawn from consideration. Claims 46-54 have been rejected. Claims 46 and 48 and the specification have been amended without prejudice.

It has come to Applicant's attention that the amended specification had not been included with the Amendment of December 31, 2001. Accordingly, Applicant attaches both a clean copy and a marked-up copy of the amended specification to this Supplemental Amendment. Applicant apologizes for this oversight and any inconvenience it has caused.

The Office Action noted that the incorporation of essential material into the specification by reference to a foreign application, patent, or publication is improper.

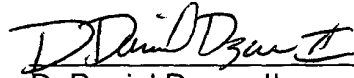
Thus, Applicant has amended the specification to include the material previously incorporated by reference to the Hammer reference. Applicant has attached a declaration stating that the amendatory material consists of the same material incorporated by reference in the referencing application, and that no new matter has been added. Thus, Applicant respectfully requests that this rejection be withdrawn.

Applicant respectfully urges that, in light of the above amendments and discussion, the claimed invention is in condition for allowance and request early notification to that effect.

In the event this paper is not timely filed, Applicant hereby petitions for an appropriate extension of time. The fee for this extension may be charged to our Deposit Account No. 01-2300, along with any other fees which may be due with respect to this paper.

Please charge any fee deficiency or credit any overpayment to Deposit Account
No. 01-2300, referring to client-matter number 100564-09014.

Respectfully submitted,



D. Daniel Dzara, II
Registration No. 47,543

ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W.
Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 857-6395

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Enclosures: Marked-Up Copy of Specification